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NPIC/R-147/63

July 1963

PHOTOGRAPHIC INTERPRETATION REPORT

POSSIBLE ANTIMISSILE MISSILE ASSOCIATED FACILITIES MOSCOW AREA, USSR



CIA



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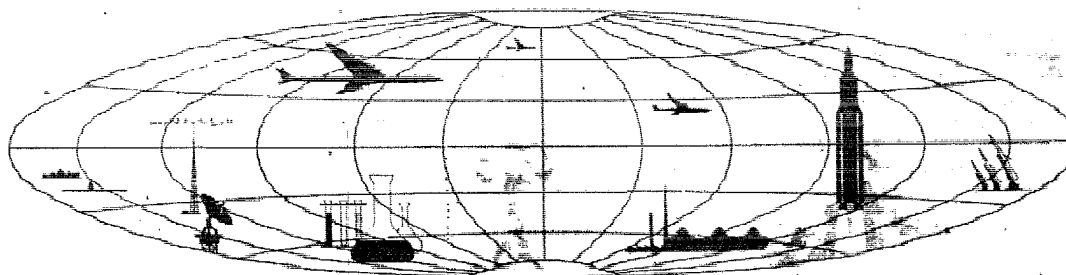
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INTRODUCTION

A preliminary analysis was undertaken in order to determine the extent of similarities between the facilities observed under construction at Moscow and those identified at Sary Shagan Antimissile Test Center (SSATC).

SSATC, [REDACTED], is located at 46-02N 73-34E, and was first identified on TALENT photography of [REDACTED]. Four facilities previously reported as unidentified structures, 1/ three at instrumentation sites and one at Launch Complex B, are located at an AMM test center and are now considered possible AMM facili-

ties for the following reasons: all four facilities are located at sites that appear to have AMM associations; and all are recent developments (Figure 1). Construction of similar facilities in Moscow was first identified on KEYHOLE photography of [REDACTED]

Only the four possible AMM facilities under construction at SSATC Instrumentation Sites 2, 10, Possible Instrumentation Site 13, and Launch Complex B will be considered in this analysis for comparison with the facilities observed in the Moscow area.

SARY SHAGAN ANTIMISSILE TEST CENTER FACILITIES

Initial construction activity was observed at Launch Complex B in [REDACTED] (Table 1).

Building construction was first observed at Sites 2 and 13 in the [REDACTED], but construction was

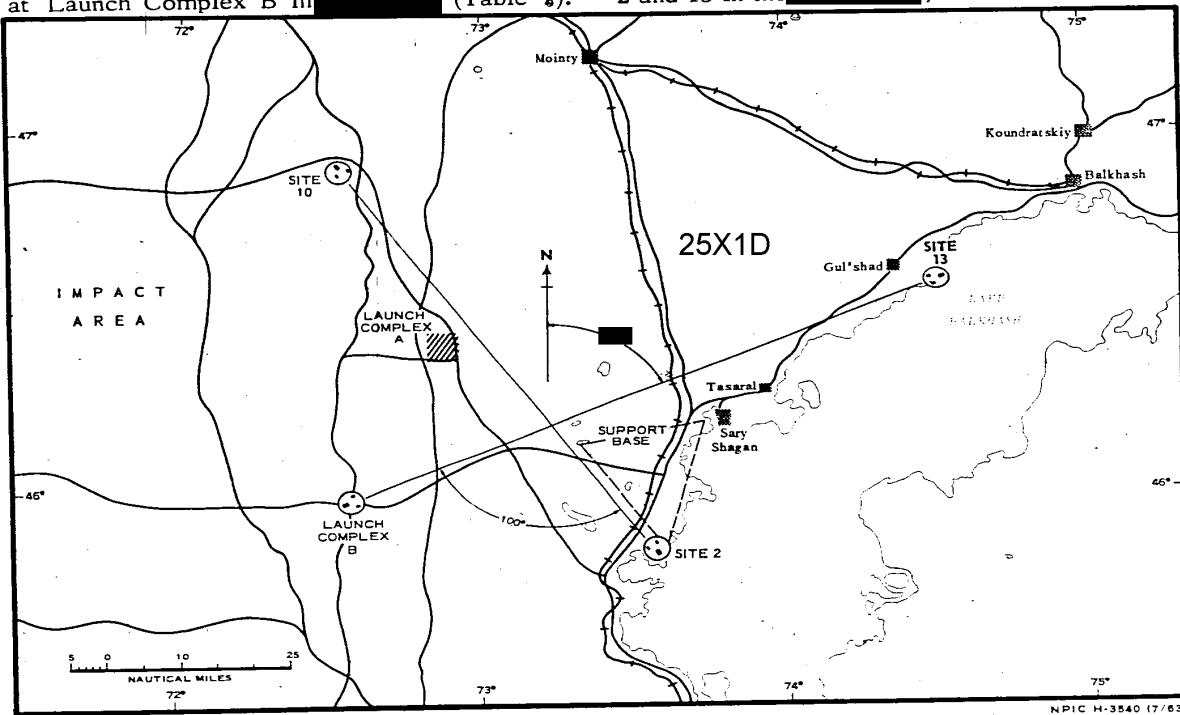


FIGURE 1. POSSIBLE ANTIMISSILE MISSILE ASSOCIATED FACILITIES, SSATC, USSR.

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Table 1. Chronology of Construction Activity at Possible AMM Facilities, SSATC, Based on Representative Missions

Mission	Launch Complex B	Instrumentation Site 2	Instrumentation Site 10	Instrumentation Site 13
25X1D	No activity	No activity; photography indistinct	Activity undetermined; haze	No apparent activity; heavy haze
	Earth scarring	Not covered	Not covered	Not covered
	Not covered	Outlines of 2 small bldgs visible; no evidence of large bldg	Not covered	Outlines of 3 bldgs barely discernible
	3 bldgs under construction	2 small bldgs appear complete with objects on roofs; large bldg under construction	Status undetermined; clouds	2 small bldgs appear to have objects on roofs; activity on roof of large bldg
	2 small bldgs appear complete with objects on roofs; roof construction on large bldg	Small bldgs appear complete with objects on roofs; large bldg under construction	Small bldgs appear complete with objects on roofs; large bldg under construction	Small bldgs appear complete with objects on roofs; roof construction on large bldg
	No apparent change in small bldgs; large bldg appears complete with objects on roof	No apparent change in small bldgs; large bldg under construction	Cloud covered	Not discernible
	No change in 3 bldgs; unidentified structure under construction	No change in small bldgs; large bldg appears complete with objects on roof; unidentified structure under construction	Activity on roof of one small bldg and large bldg; unidentified structure under construction	No change in small bldgs; large bldg with object on roof appears complete, but same activity on roof; unidentified structure under construction
	No change in 3 bldgs; some activity on roof of large bldg; unidentified structure present	No discernible change; hazy photography	Cloud covered	Not covered
	Cloud covered	Not covered	Not covered	Identification only

not observed at Site 10 until the [REDACTED] Only Site 13 did not utilize an existing installation, and 14 support buildings were constructed there between [REDACTED]

through [REDACTED] During the winter of [REDACTED] activity was observed at these facilities while many of the other installations appeared inactive.

Work has been observed progressing concurrently and continuously at all four facilities

Major components at the four facilities consist of a large rectangular building and two

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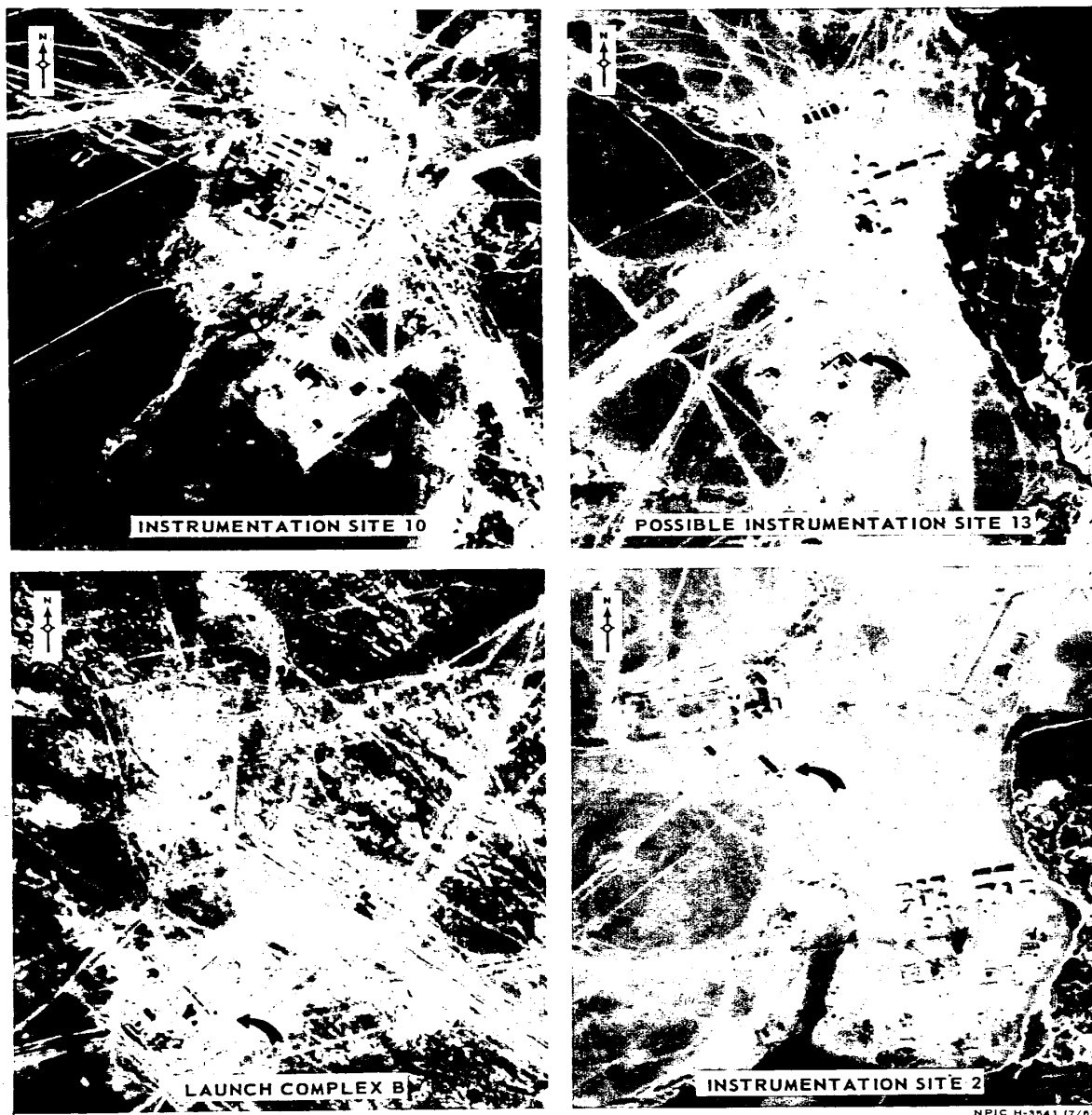


FIGURE 2. POSSIBLE AMM-ASSOCIATED FACILITIES, SSATC, USSR.

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small buildings arranged in a distinctive equilateral-triangle pattern (Figure 2). An unidentified structure is located paralleling the end of the large rectangular building opposite the small buildings. The facilities at Sites 2 and 10 appear diagonally opposed and are located approximately 80.4 nautical miles (nm) apart. Facilities at Launch Complex B and possible Site 13 appear diagonally opposed and are located approximately 92.0 nm apart. The four facilities form an irregular trapezoidal pattern with diagonally opposed facilities appearing as mirror images. The two small buildings are always located on the inside of the pattern. Exact configurations and dimensions cannot be determined because of the small scale of the photography.

LARGE RECTANGULAR BUILDING

This building was measured at all four facilities and averaged 230 by 135 feet, with an approximate height of 50 feet (Table 2). One

or possibly two objects are located on a roof section that has a different tone from the rest of the roof.

TWO SMALL BUILDINGS

These buildings were measured at all facilities and averaged 90 by 90 feet, although it cannot be determined if the building is truly square. They range from 30 to 50 feet in height. At Sites 2 and 13, these buildings were observed under construction in [REDACTED] the exteriors of most buildings appeared to be complete. Each building has an object positioned at the approximate center of its roof. A line connecting the objects on the small buildings with one on the large building forms an equilateral triangle which averages 630 feet to a side.

UNIDENTIFIED STRUCTURE

This structure was measured at all facilities and averaged 135 by 30 feet, with an approximate height of 20 feet. It was first observed

Table 2. Dimensions of Major Components*

Facilities	Large Rectangular Bldg (feet)	Small Bldgs ² (feet)	Unidentified Structure (feet)	Unidentified Ground Pattern (feet)
SSATC, Possible Instrumentation Site 13	230 x 135 x 30 high	95 x 80 x 30 high 100 x 95 x 30 high	125 x 20 x 15 high	Not applicable
SSATC Instrumentation Site 10	220 x 145 x 50 high	90 x 85 x 35 high (no measurement on second bldg)	145 x 35 x 20 high	Not applicable
SSATC Instrumentation Site 2	225 x 125 x 50 high	85 x 80 x 50 high 90 x 90 (height undetermined)	130 x 20 (height undetermined)	Not applicable
SSATC Launch Complex B	235 x 130 x 50 high	85 x 75 x 50 high 85 x 85 (height undetermined)	145 x 25 (height undetermined)	Not applicable
Moscow SA-1 SAM Site E-33	230 x 135 x 30 high	110 x 95 (height undetermined) (no measurement on second bldg)	Not applicable	225 x 35 (base) 95 x 40 (stem)

*All dimensions are approximate because of the small scale of the photography.

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at all facilities in [REDACTED]. The top appears flat without any objects, as of [REDACTED].

OTHER ACTIVITY

Numerous small miscellaneous structures are observed at all facilities, some of which

are probably temporary for construction purposes. A road network and rather extensive scarring from probable underground conduits are evident in the immediate vicinity of the major buildings.

MOSCOW FACILITIES

Construction of facilities similar to those observed at SSATC was first identified at Moscow at SA-1 SAM Sites E-15 and E-24 on photography of [REDACTED] and SA-1 SAM Site E-33 on photography of [REDACTED] (Figures 3-6). A review of earlier photography indicates that ground scarring was first evident at Site E-24 in [REDACTED] and Sites E-15 and E-33 in [REDACTED] although the nature of the activity

could not be determined at the time (Table 3). Each of these three facilities consists of two small buildings and one large rectangular building arranged in a triangular pattern, with an unidentified ground pattern toward the center line of the SA-1 site.

Facilities at Sites E-15 and E-33 appear diagonally opposed at a distance of approximately 88.5 nm. No fourth facility has been observed

Table 3. Chronology of Construction Activity at Possible AMM Facilities, Moscow, Based on Representative Missions

Mission	E-15	E-24	E-33	E-05	E-06
25X1D [REDACTED]	No activity	No activity	Not covered	Not covered	No activity
[REDACTED]	No activity	Earth scarring	No activity	No activity	Not covered
[REDACTED]	Earth scarring	Not covered	Construction activity for large bldg	Not covered	Not covered
[REDACTED]	Construction activity	Construction activity for 2 small bldgs, scarring for large bldg	Construction activity for all 3 bldgs	Cloud covered	Not covered
[REDACTED]	Layout assuming triangular pattern; bldgs not yet erected; unidentified ground pattern observed	Small bldgs appear complete; walls of large bldg under construction; unidentified ground pattern observed	Cloud covered	Cloud covered	No activity
[REDACTED]	Small bldgs appear complete with objects on roof; walls of large bldg under construction; unidentified ground pattern visible	3 bldgs appear complete with objects on roofs; unidentified ground pattern visible	3 bldgs appear complete with objects on roofs; unidentified ground pattern observed	Cloud covered	Cloud covered

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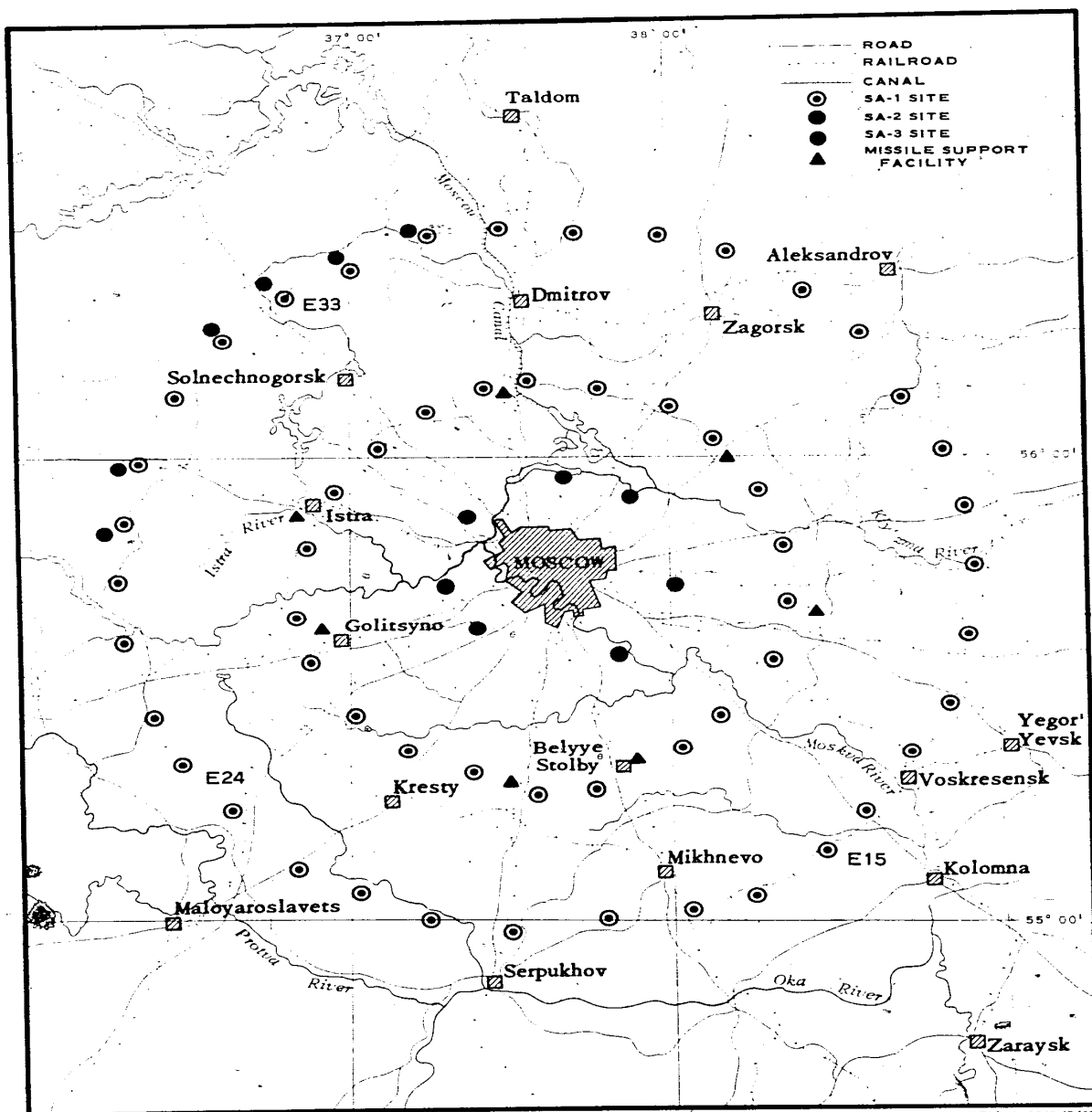


FIGURE 3. MOSCOW AREA.

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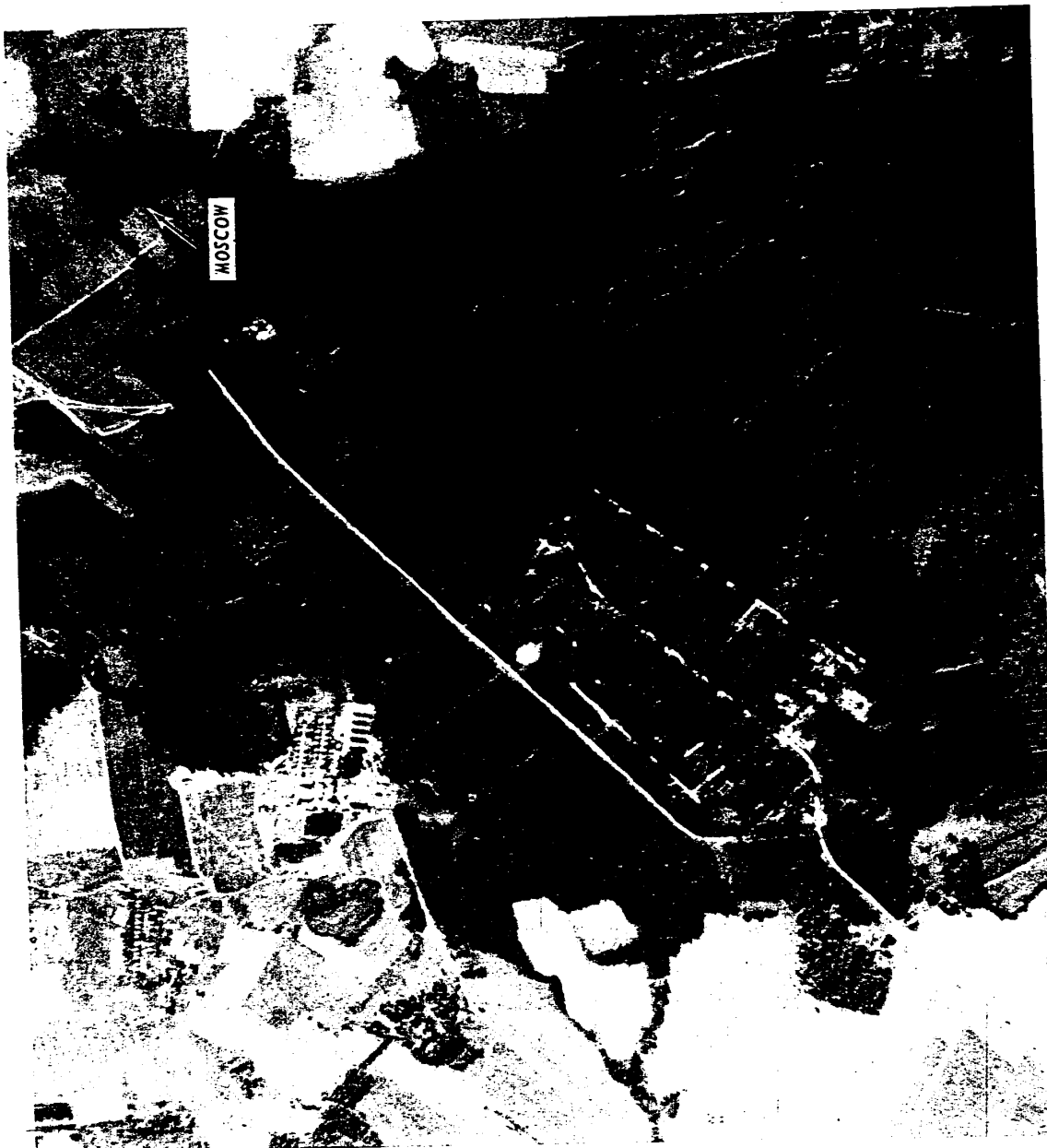
FIGURE 4. POSSIBLE AMM-ASSOCIATED FACILITY AT SA-1 SAM SITE E-15

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FIGURE 5. POSSIBLE AMH-ASSOCIATED FACILITY AT SA-1 SAM SITE E-24

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FIGURE 6. POSSIBLE ANW-ASSOCIATED FACILITY AT SA-1 SAM SITE E-33

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in the northeast quadrant diagonally opposed to the facility at Site E-24 through [REDACTED]

[REDACTED] Sites E-05 and E-06 were the most likely candidates for such a fourth facility. No construction activity of a significant nature was visible at Site E-06 through the most recent coverage, [REDACTED]

Site E-05 was last seen on photography of [REDACTED] at which time no construction activity was noted although a road paralleling the launch positions is similar to the facility access road at Site E-15. The diagonal distance from the facility at Site E-24 to the suspect facility at Site E-05 is 88.9 nm.

At the three facilities where these buildings have been observed, the two small buildings are located on the side facing Moscow. It appears that major components at the three Moscow facilities will be similar to those at SSATC. At SA-1 SAM Sites E-33 and E-24 the exteriors of the large rectangular buildings and the two small buildings all appear complete and objects are positioned on the roofs of all buildings.

Between [REDACTED] when only clearings and construction activity were noted, and [REDACTED] the exterior of the two small buildings at SA-1 Site E-15 appears to have been completed. Photography through [REDACTED] does not permit an accurate determination as to whether the exterior of the large rectangular building is complete or, if it is, whether the objects are in position on the roof.

At Site E-33, the large rectangular building is approximately 230 by 135 feet and has an approximate height of 30 feet. Imagery of only one of the small buildings is sufficiently distinct for mensuration purposes; and it measures approximately 110 by 95 feet.

Unidentified ground patterns are located approximately 850-900 feet from the large rectangular buildings toward the center line of the SA-1 sites. In all cases the three buildings are situated at the left front side of the herringbone launch pattern in reference to Moscow.

A line connecting the unidentified objects on the buildings does not form an equilateral triangle as at the facilities at SSATC, but at SA-1 SAM Site E-33 the legs measure approximately 790, 835, and 970 feet. The unidentified ground pattern is about 860 feet from the object on the large building.

Additional supporting buildings, some possibly under construction, have been noted at Sites E-15, E-24, and E-33. Similar additional support buildings have also been noted at Site E-05.

A search of the Moscow area, with the exception of the northeast quadrant which was cloud covered on photography of [REDACTED] revealed no recognizable AMM launch positions. Although other new construction has been observed in the Moscow area, it has not been included in this report inasmuch as no AMM association could be determined.

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SUMMARY

Although photographic coverage has been sparse over Moscow, the three possible AMM facilities under construction at SA-1 SAM sites along the outer defense road compare favorably with the possible AMM facilities at SSATC. Initial facility construction was during the [REDACTED] at SSATC and the summer of [REDACTED] at Moscow. The ground scarring patterns

for buildings at Moscow resemble those previously observed at SSATC. Major buildings at Moscow, where exteriors are complete, compare very favorably with those at SSATC in measurements and configuration (Figure 7). The positions of the roof-mounted objects also compare favorably. The separation between the buildings in the triangular pattern at Moscow

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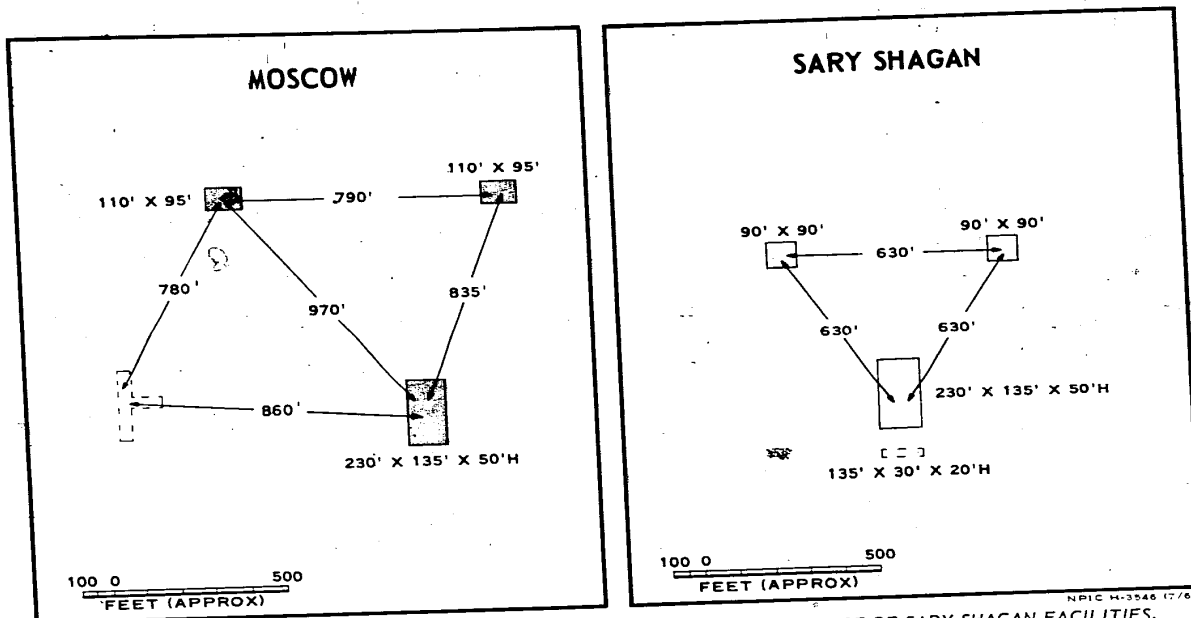


FIGURE 7. COMPARISON OF DIMENSIONS, FACILITY AT MOSCOW E-33 AND AVERAGE OF SARY SHAGAN FACILITIES.

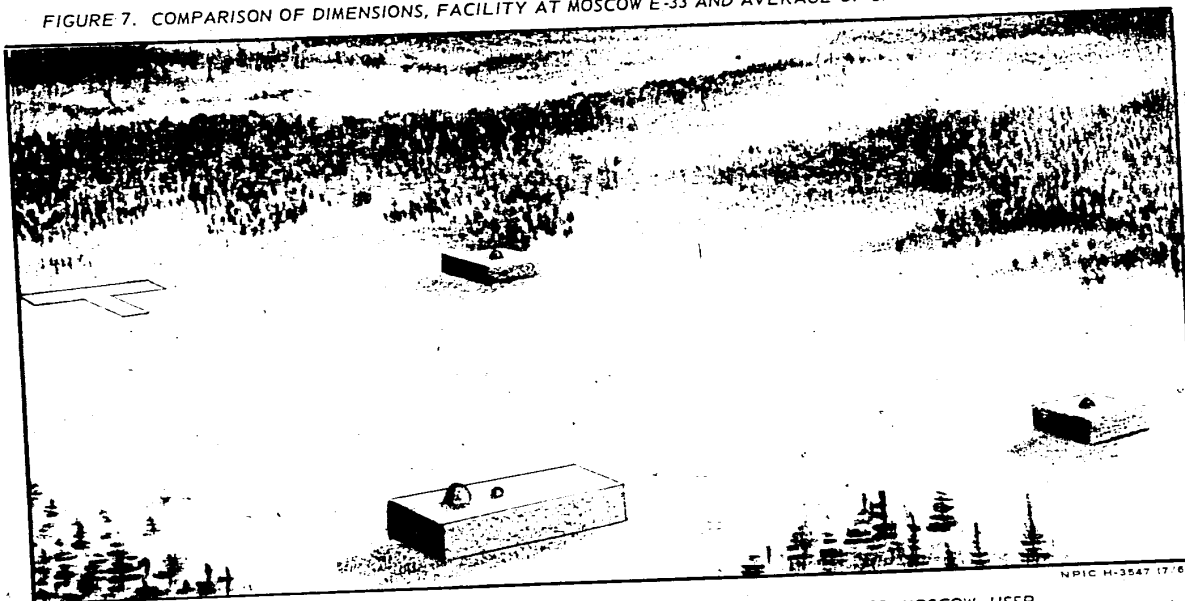


FIGURE 8. POSSIBLE AMM-ASSOCIATED FACILITY AT SA-1 SAM SITE E-33, MOSCOW, USSR.

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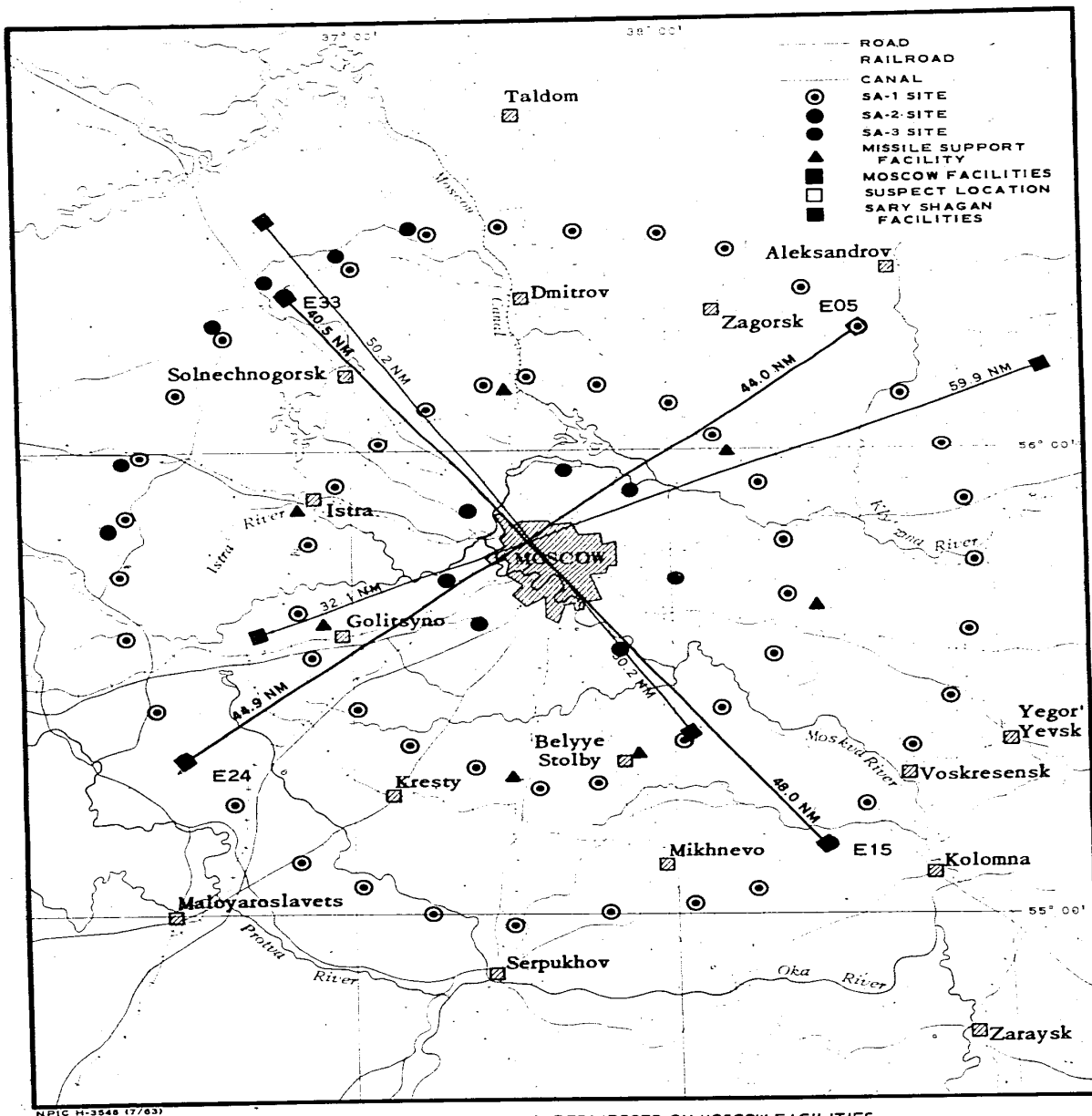


FIGURE 9. SSATC FACILITIES SUPERIMPOSED ON MOSCOW FACILITIES.

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is greater than the separation at SSATC. An unidentified ground pattern appears at Moscow facilities, but is not apparent at SSATC facilities. An unidentified structure is apparent at SSATC facilities but not at Moscow facilities. The structure could appear at Moscow facilities at a later date if construction chronology is similar to that at SSATC. Exterior construction of the Moscow facilities is proceeding at a more rapid rate than that observed at SSATC.

Although the building spacing within the Moscow facilities forms a larger and somewhat different-shaped triangle from that at SSATC

facilities (Figure 8), mirror images are noted at facilities that are diagonally opposed. The distance across the northwest-southeast diagonal at Moscow is less than 10 percent smaller than the northwest-southeast diagonal at SSATC (Figure 9). This similarity becomes even more significant when allowances are made for differences in terrain and necessary adaptations to existing military facilities. If the suspect facility location at site E-05 is considered as opposing site E-24, the diagonal distance is less than four percent smaller than the distance between the northeast-southwest diagonal at SSATC.

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REFERENCES (Continued)

MAPS OR CHARTS

Moscow

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- ACIC. US Air Target Chart, Series 200, Sheet 0154-23HL, 2d ed, Apr 63, scale 1:200,000 (SECRET)
- ACIC. US Air Target Chart, Series 200, Sheet 0167-4HL, 2d ed, Mar 63, scale 1:200,000 (SECRET)
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SSATC

- ACIC. US Air Target Chart, Series 200, Sheet 0245-9-200AL, 2d ed, May 61, scale 1:200,000 (SECRET)
- ACIC. US Air Target Chart, Series 200, Sheet 0245-10AL, 2d ed, Jun 60, scale 1:200,000 (SECRET)
- ACIC. US Air Target Chart, Series 200, Sheet 0245-14AL, 3d ed, Mar 61, scale 1:200,000 (SECRET)
- ACIC. US Air Target Chart, Series 200, Sheet 0245-15AL, 2d ed, Mar 63, scale 1:200,000 (SECRET)

DOCUMENTS

1. CIA. NPIC/R-100/62, Possible Instrumentation Site 13, Antimissile Test Center, Sary Shagan, USSR, Jul 62 (TOP SECRET CHESS RUFF)

NPIC PROJECT

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